

What is claimed is:

1. A hinge unit comprising:

a case,

5 a rotational axis rotatably housed in the case and disposed
slidably in an axial direction of the case, said rotational axis
having two ends and a key portion formed on an outer periphery
surface thereof,

10 a stopper fixed to the case for receiving the rotational
axis to pass therethrough, and having an engaging portion for
engaging the key portion,

a sub-cam slidably inserted into one of the two ends of the
rotational axis and rotating together with the rotational axis,

15 first urging means connected to the sub-cam and the stopper
for applying a twisting force to the sub-cam and urging the sub-
cam in a direction away from the stopper,

a cap fixed to the case for receiving the rotational axis to
pass therethrough and for restricting a sliding movement of the
sub-cam,

20 fastener means fixed the other of the two ends of the
rotational axis and arranged to be slidable relative to the case,
and

25 second urging means provided between the cap and the
fastener means, said second urging means urging the fastener
means in a direction away from the cap and pulling the rotational
axis through the fastener means to engage the engaging portion
with the key portion so that upon pressing the rotational axis in
a direction against the second urging means, the engaging portion
is released from the key portion.

2. A hinge unit according to claim 1, further comprising a button portion fixed to the fastener means for pressing the rotational axis in the direction against the second urging means.

5 3. A hinge unit according to claim 1, wherein said cap further includes a plurality of first depressions or first projections formed on a surface facing the sub-cam, and said sub-cam further includes a plurality of second depressions or second projections
10 formed on a surface facing the cap for engaging with or disengaging from the first depressions or the first projection through rotation.

4. A hinge unit according to claim 3, wherein each of said first depressions of the cap includes an inclined wall and a
15 substantially standing wall, said second projection of the sub-cam being pressed against the substantially standing wall with the twisting force of the first urging means, said second projection of the sub-cam abutting against the inclined wall at a corner thereof.

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5. A hinge unit according to claim 3, wherein each of said second depressions of the sub-cam includes an inclined wall and a substantially standing wall, said first projection of the cap being pressed against the substantially standing wall with the
25 twisting force of the first urging means, said first projection of the cap abutting against the inclined wall at a corner thereof.

6. A hinge unit according to claim 1, further comprising a drive
30 cap fitted to the one end of the rotational axis and having a cam

groove formed on an inner periphery surface thereof, said rotational axis having a cam portion formed on an outer periphery surface thereof for engaging the cam groove of the drive cap so that the drive cap rotates when the rotational axis slides in the axial direction of the case.

7. A hinge unit according to claim 1, wherein said engaging portion is disposed at a position corresponding to a position of the key portion when the rotational axis rotates by an angle between 80° and 140° or approximately 165° .

8. A hinge unit according to claim 3, wherein said first depression is disposed at a position corresponding to a position of the second projection when the rotational axis rotates by an angle between 80° and 140° or approximately 165° .

9. A hinge unit according to claim 3, wherein said first projection is disposed at a position corresponding to a position of the second depression when the rotational axis rotates by an angle between 80° and 140° or approximately 165° .

10. A hinge structure comprising said hinge unit according to claim 1, a first housing member having an axial portion attached to said case, a second housing having an axial portion attached to one of said rotational axis and said drive cap so that the first housing member rotates relative to the second housing member.

11. A hinge structure according to claim 10, further comprising damper means provided in one of the axial portions of the first

housing member and the second housing member for applying a braking force to the first urging means according to an opening angle of the first housing member relative to the second housing member after the key portion is released from the engaging
5 portion.

12. A hinge structure according to claim 10, wherein said damper means includes a housing having a substantially cylindrical shape and filled with viscous fluid, a rotor rotatably disposed in the
10 housing and having wing portions, and dividing walls projecting from an inner periphery surface of the housing for forming a plurality of liquid chambers communicating with each other, said housing and wing portions being formed such that a distance
15 between an end of the wing portion and the inner periphery surface of the housing changes according to a rotational angle of the rotor.